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**DECISION**

*a Mulligan  
Proc I*  
**THE COMPTROLLER GENERAL  
OF THE UNITED STATES  
WASHINGTON, D. C. 20548**

**FILE:** B-187116

**DATE:** January 31, 1977

**MATTER OF:** Sperry Rand Corporation

**DIGEST:**

1. Where RFP established computer hardware requirement and successful offeror proposed "firmware," after technical review of issue, GAO does not believe protester has substantiated its view that firmware is always classified as software, nor has protester clearly shown that agency's acceptance of firmware as being sufficient to fulfill hardware requirement lacks reasonable basis.
2. Agency's acceptance of successful offeror's firmware as meeting RFP computer hardware specification may not have effected substantial change in Government's requirements. However, where RFP did not mention firmware and indicated that Government's primary concern was obtaining acceptable computer at lowest price, GAO believes agency failed to maximize competition because it did not conduct meaningful discussions which would have advised protester that firmware approach might be acceptable and that protester's hardware approach was potentially excessive response to agency's needs.
3. Despite agency's view that RFP provision requiring successful completion of computer benchmark in 8 hours was established as matter of Government's convenience and was not necessarily inflexible, in case where agency found it appropriate to allow one offeror almost 15 total hours in 2 benchmark sessions more than 3 months apart, GAO believes that RFP should have been amended to indicate that 8-hour requirement was flexible, and second offeror should have been allowed to revise proposal and have been accorded similar flexible treatment in benchmark of revised proposal's equipment configuration.
4. Waiving certain computer benchmark requirements and allowing substitutions of equipment in successful offeror's benchmark performance is not found to be objectionable in circumstances where waivers and substitutions (1) were believed necessary to maintain competition in procurement (2) involved incidental,

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lower-performance equipment and (3) did not affect offeror's obligation to furnish higher-performance equipment it had proposed and which agency had found to be technically acceptable.

5. Where agency states that computer benchmark output was examined and found to be acceptable, protester's contradictory assertion that successful offeror's benchmark results were partially unacceptable does not establish that agency's account of facts is inaccurate.
6. Where agency required certification in best and final offers that equipment configuration proposed was that which had passed computer benchmark and had been determined to be technically acceptable, successful offeror's responses are viewed as meeting intent of requirement though certification as such was not provided.

The Sperry Rand Corporation, acting through its Sperry Univac Federal Systems Division (hereinafter Sperry Univac), has protested the award of a contract to Systems Engineering Laboratories (SEL) under request for proposals (RFP) No. 5663, issued by the United States Geological Survey, Department of the Interior.

The RFP contemplated the award of a contract for a small computer system and ancillary items. The principal evaluation factor was total cost to the Government. Three offerors submitted proposals. Sperry Univac's and SEL's proposals were found to be in the competitive range. Negotiations were conducted, benchmark demonstrations were held, and several rounds of revised proposals were submitted. In the final evaluation, SEL's lowest evaluated price (on a purchase basis) was \$463,941.89 and Sperry Univac's lowest evaluated price (lease with option to purchase basis) was \$1,008,755.56. Award was made to SEL.

The protester contends that SEL's proposal failed to meet several RFP hardware and software requirements, and that SEL's performance of the live test demonstration (benchmark) was not in accordance with the RFP. Sperry Univac believes that by accepting SEL's proposal in these circumstances, the agency waived certain of the RFP's provisions, and thereby made substantial changes in the Government's requirements--without complying with Federal Procurement Regulations § 1-3.805-1(d) (1964 ed. circ. 1), which requires that

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substantial changes be made by a written amendment to the RFP. Relying on the reasoning in such decisions as University of New Orleans, B-184194, January 14, 1976, 76-1 CPD 22, and Corbetta Construction Company of Illinois, Inc., 55 Comp. Gen. 201 (1975), 75-2 CPD 144, Sperry Univac contends that the agency's actions deprived the Government of the benefit of maximum competition. Also, the protester contends that it was prejudiced, because had it known of the changes it could possibly have offered one of its systems list-priced at \$588,754 or one list-priced at \$628,600, either of which, in the normal course of negotiations would have placed it in a most competitive position in the procurement.

The agency believes that the protester's allegations are without merit. Its position, briefly stated, is that SEL's proposal was in compliance with the RFP, and that the actions of the contracting officer and other agency officials were proper and within their procurement discretion.

The treatment of the following issues is organized in this sequence: requirement(s) imposed on the offerors; summary of the protester's position; summary of the agency's position; and our resolution of the issue.

#### Hardware Requirement v. Firmware Proposal

RFP section 6.2.2b: "Hardware floating-point arithmetic is required with 7-digit minimum single-precision and 11-digit minimum double-precision capability."

Protester: Hardware floating point is a mandatory requirement. SEL offered "firmware." Firmware is software. It cannot be considered an acceptable substitute for the required hardware feature (in support of this, Sperry Univac has furnished an affidavit from its Director of Computer Sciences, a Ph.D. with an extensive background of professional qualifications and accomplishments in the computer field). By accepting SEL's firmware, the agency changed its requirements without issuing an amendment to the RFP which would have advised Sperry Univac of the change and permitted it to compete on an equal basis.

Agency: Firmware floating point is not generally recognized in the industry as software. In the technical opinion of the agency, the firmware offered by SEL is functionally and generically hardware. SEL met the requirement.

Our review of this issue has included examination of the record by GAO staff members with a technical background in automatic data processing equipment. This technical review was not undertaken with the intent of evaluating SEL's proposal, since evaluation of proposals is the function of the contracting agency. Rather, our objective is to decide whether the agency's evaluation and conclusions are clearly shown to be without a reasonable basis. See Julie Research Laboratories, Inc., 55 Comp. Gen. 374 (1975), 75-2 CPD 232.

It is our understanding that firmware is generally regarded as hardwired software, and that it can be considered to be both hardware and software. In our opinion, Sperry Univac has not substantiated its viewpoint that firmware is always classified as software. Further, after examining the protester's submissions and SEL's proposal, we do not think that the protester has made a clear showing that the agency's acceptance of SEL's firmware as being sufficient to fulfill the hardware requirement has no reasonable basis to support it.

As to whether the agency was required to issue an amendment to the RFP to advise Sperry Univac that the agency's needs had changed from hardware to firmware, we think that a difficult question is presented. The protester cites decisions of our Office in support of its position, several of which are discussed in Corbetta, 55 Comp. Gen., supra, at pages 207-208. However, these decisions generally involved situations where RFP's established specific requirements for certain types of equipment, and the successful proposals offered items which were clearly different from what was called for. See, for example, Instrumentation Marketing Corporation, B-182347, January 28, 1975, 75-1 CPD 60, where the RFP called for brand name cameras with features such as magazine load and dual register pins, and the successful offeror's camera lacked several of the required features.

The present case is not nearly as clear-cut. We think that SEL's firmware has certain characteristics normally associated with hardware; also, the agency states that it considers the firmware to be compliant, in a functional sense, with the RFP hardware requirement. A strong case can be made, then, that acceptance of SEL's firmware did not involve a substantial change in the agency's requirements, but was merely a matter of technical judgment as to whether a particular offeror's technical approach met the requirements.

However, this analysis does not dispose of the issue. The real question, in our opinion, is whether the agency failed to maximize competition by not conducting meaningful written or oral

discussions--discussions which would have advised the protester that the hardware approach it had proposed was an excessive and costly response to a requirement which the agency had decided could be satisfied by a firmware approach.

In this connection, our office has recognized that the requirement that the agency conduct meaningful discussions, including discussions of offerors' proposal deficiencies, may be properly limited by the need to preclude the "technical transfusion" of one offeror's innovative, ingenious technical approach to another offeror. See Ocean Design Engineering Corporation, 54 Comp. Gen. 363 (1974), 74-2 CPD 249; Raytheon Company, 54 Comp. Gen. 169 (1974), 74-2 CPD 137; Baganoff Associates, Inc., 54 Comp. Gen. 44 (1974), 74-2 CPD 56. However, such cases commonly involved cost reimbursement-type contract procurements in which the RFP stressed the need for innovative technical approaches by offerors.

The present procurement is on a fixed-price basis. Given acceptable technical proposals, the agency's primary concern would be obtaining the most advantageous price to the Government. The RFP required a hardware feature; it did not mention firmware. We see no basis on the record to conclude that SYL's offer of a firmware approach, as such, represented an ingenious, innovative technical approach to the agency's needs. When the agency decided that a firmware approach could be acceptable, we believe it, in effect, determined that Sperry Univac's hardware approach was weak or deficient in the sense that a hardware approach was a potentially excessive technical response to the agency's needs, involving excess cost. Accordingly, we believe that the agency erred in failing to advise Sperry Univac that a firmware approach might be considered acceptable and allowing Sperry Univac an opportunity to submit a revised proposal on that basis.

#### 8-Hour Benchmark Period

RFP section 7.1: "The offeror will be given an 8-hour period during which the benchmark must be successfully run."

Protester: The agency waived this requirement for SEL. SEL ran its benchmark on two different occasions (October 28, 1975 and February 9, 1976) involving a total run time of 14 hours, 55 minutes. In contrast, Sperry Univac personnel were told at their benchmark that the 8-hour period was a firm requirement.

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Agency: This is not a system requirement or a measure of computer efficiency. It was established for the Government's convenience and was designed to preclude exhaustive, marathon sessions of computer trials, failures, reruns, etc. The RFP did not prohibit a rerun of the benchmark. It was in the Government's best interest to allow SEL to rerun part of its benchmark, because this preserved competition in the procurement.

We have difficulty with the agency's position. The agency cites decisions such as Linolex Systems, Inc., et al., 53 Comp. Gen. 895 (1974), 74-1 CPD 296, Sycor Inc., B-190310, April 22, 1974, 74-1 CPD 207, which do recognize that flexibility in applying RFP benchmark requirements (insofar as such requirements relate to the technical acceptability of proposals) may be appropriate. However, the degree of flexibility exercised in this case goes considerably beyond what was involved in the cited decisions.

While the 8-hour benchmark period in this case may have been established for the Government's convenience, the degree of flexibility of its application--both with respect to the total number of benchmark hours and the time interval between benchmark runs--obviously has some bearing on the equipment configuration which offerors are willing to propose. An offeror having reason to believe that the requirement will be flexibly applied might be willing to propose a less efficient, less expensive system than it otherwise would. The RFP benchmark provisions are phrased in mandatory terms. They give little indication that the agency intended to apply them flexibly.

At the same time, we recognize that it would not be entirely accurate to conclude that the agency's application of the benchmark requirements was totally rigid insofar as the protester was concerned and flexible for SEL. A more serious question would be presented here if Sperry Univac's proposal had been rejected for failure to complete the benchmark within exactly 8 hours. This did not occur. The record indicates that Sperry Univac completed the test successfully and in the time remaining within the 8-hour period was given an opportunity to run a different system, even though that system had not been proposed as an alternate proposal. Again, if an alternate proposal had been submitted, a different question would be presented.

On balance, however, we believe that when the agency found it appropriate to flexibly apply the 8-hour requirement to SEL, to the extent that it did, it should have amended the RFP to give a clearer

indication of the real nature of the 8-hour requirement, and allowed Sperry Univac an opportunity to make technical revisions to its initial proposal. If Sperry Univac had chosen to submit a revised technical proposal, the agency should then have proceeded to apply the benchmark requirements to Sperry Univac's revised proposal in a manner similar to the treatment given SEL.

#### Benchmark Equipment

RFP Amendment No. 1: "All hardware and software used in the performance of the [benchmark] must be included in the offeror's proposal. RFP section 7.3: "The benchmark is to be run with the equipment the vendor proposes to deliver."

Protester: Some of the requirements were waived for SEL without Sperry Univac's knowledge. The agency waived the card punch requirement, allowed substituted equipment for the disk and operator's console, and allowed SEL to modify its printer. The agency claims that it was simply exercising its discretion as to judging the technical acceptability of proposals, but the decisions it cites (such as Sycor, Inc., supra) do not stand for the proposition that RFP requirements can be ignored under the guise of discretion in making technical judgments.

Agency: SEL's proposal included several items of equipment which it does not manufacture. To benchmark these items, SEL would have had to purchase or lease them in anticipation of being awarded the contract. There was concern that SEL might withdraw from the competition, leaving Sperry Univac (whose proposal was considered to be too expensive) as the only remaining offeror. It is not the agency's practice to waive benchmark requirements. However, in the special circumstances present in this case, the contracting officer decided to waive the requirements in regard to benchmarking the card punch and controller, which are items of minimum significance. In performing the benchmark, SEL was allowed to substitute some items (moving head disk and terminal) for those it had proposed, but care was taken to insure that the substituted items were of lower performance capability. Notwithstanding the waivers and substitutions in the benchmark, SEL is obligated under its contract to furnish the technically acceptable items it proposed and to benchmark these successfully during contract performance.

We agree with the protester that, as a general proposition, RFP benchmark requirements cannot simply be disregarded on the basis that an agency is making "technical judgments." However, the agency in this case was not relying solely on technical judgment, but on its

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procurement judgment as to the actions necessary to maintain a competitive environment. Also, after examining the record we are inclined to agree with the agency's view that the waivers and substitutions essentially involved incidental equipment only. Finally, even assuming for the purposes of argument that the agency erred in not issuing a written RFP amendment concerning benchmark waivers and substitutions, we have difficulty seeing how Sperry Univac was prejudiced. If similar latitude had been allowed Sperry Univac in running its benchmark, it is unclear to us how this would have enabled the protester to significantly improve its competitive position in the procurement--considering that it would still have been obligated (as is SEL) to furnish the equipment it actually proposed (and which the agency had determined to be technically acceptable) under any resulting contract.

#### Benchmark Output

RFP section 7.3 required offerors to meet certain CPU times for compilation and execution of programs.

RFP section 7.4 required offerors to supply benchmark output data showing whether the requirements of section 7.3 were met.

Protester: The limited SEL output information in the agency's possession shows that SEL did not meet the compilation times for 3 of the 5 problems involved. The agency claims that SEL supplied all the required output but that later it was apparently discarded; however, the agency acknowledges that it has retained all of Sperry Univac's output. Certain outputs were never furnished by SEL, as for example, the punched card output. Also, the agency admits that SEL's output for problem No. 5 was incomplete.

Agency: The output data which Sperry Univac contends shows that SEL failed to meet compilation times for 3 problems does not accurately reflect SEL's compilation timings; the actual relevant data, along with other output information, was not maintained in good order and apparently has been discarded. Existing documents do reflect the conclusion of the technical evaluation team chairman--who witnessed the SEL benchmark--that SEL's timings were acceptable. The RFP required that output data be "supplied"; SEL produced the required output, it was available for examination by the Government, and as such it was supplied. Sperry Univac shipped its output data to the agency, but this was not required by the RFP. The SEL output for problem No. 5 was off by 0.23 percent, which is not regarded as a significant discrepancy. In regard to the card punch, as already noted SEL did not benchmark the card punch it proposed; but the technical evaluation team did examine the technical specifications of the proposed card punch and judged that it met the RFP requirements.

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This is essentially an issue of credibility. The agency states that its personnel observed the SEL benchmark, that SEL performed satisfactorily, and that the objective data which would further substantiate that fact is no longer available. Where the only evidence with respect to a disputed question of fact consists of contradictory assertions by the protester and the contracting agency, the protester has failed to carry the burden of affirmatively proving its allegations. Telectro-Mek, Inc., B-185892, July 26, 1976, 76-2 CPD 81. To whatever extent protester's allegations may be taken as implying that agency personnel acted in less than good faith, considering the written record before us, which forms the basis for rendering decisions in bid protest cases, they must be regarded as merely speculative. Julie Research Laboratories, supra.

#### Certification in Best and Final Offer

Agency letter dated May 18, 1976: "[Proposals] must also contain a certification that the configuration of equipment which was used in the performance of the Live Test Demonstration and subsequently determined by the Government to meet the minimum requirements is that which is being offered."

Protester: Agency never received such a certification from SEL.  
Agency: Failure to provide the certification was not viewed as sufficient cause to reject a proposal. The Government's technical evaluation team had certified that SEL successfully completed the benchmark test.

It appears to us that the purpose of this requirement was to insure that offerors in their best and final proposals were offering the same type of equipment which had been successfully demonstrated in the benchmark and determined by the agency to be technically acceptable.

Since some equipment waivers and substitutions had been allowed for SEL's performance of the benchmark, a certification by SEL that it was offering the same equipment used in its benchmark would not be what the agency was seeking. The agency would, however, want to be assured that SEL would be contractually obligated to furnish all of the equipment it offered in its proposal.

Under section 2.9 of the RFP, the contents of the successful offeror's proposal were to be considered as obligations of the contractor. Subsequent to the agency's May 18, 1976, letter, SEL submitted several letters and messages during the period from June 1 to June 18, 1976. These letters and messages make numerous revisions to SEL's

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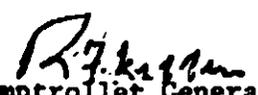
proposed prices but do not appear to make any technical changes to the proposed equipment configuration. Also, the agency has stated that it considers SEL contractually obligated to provide the equipment it proposed. Under the circumstances, we think that SEL in effect certified that it was offering the equipment configuration which the agency had determined to be technically acceptable.

Conclusion

To the extent indicated above, Sperry Univac's protest is sustained. We believe that the agency's actions in the procurement did not afford to the Government the benefits of maximum competition. Based on the record before us, the question of the degree of prejudice experienced by the protester is more speculative; in our view, it is uncertain how much Sperry Univac would have improved its competitive position in the procurement if the agency had acted otherwise.

In any event, the current status of the procurement renders any recommendation for corrective action impracticable. In this regard, the agency's November 11, 1976, report to our Office estimated that if the protest were upheld, the Government would incur (as of that point in time) a minimum of about \$137,000 in additional costs (consisting of nonrecoverable agency expenses in connection with the SEL contract, termination for convenience settlement, and reprocurement costs). Undoubtedly the cost of corrective action at the present time would be greater; we understand that as of January 1977 the computer system was in the process of being installed. Accordingly, we see no basis to conclude that a recommendation for corrective action with respect to the award in this case would be in the Government's best interests.

However, by letter of today to the Secretary of the Interior, we are suggesting that our decision's conclusions with respect to the issues decided in the protester's favor be brought to the attention of the departmental personnel concerned with a view towards attempting to preclude a repetition of similar difficulties in future procurements.

  
Deputy Comptroller General  
of the United States